From: gmcshane@servicesteel.org

To: Scheffler, Ken/SEA

Cc: <u>Duppong, Jerry/SEA; Bottcher, Helen</u>

Subject: RE: Wyckoff Sheet Pile Wall Condition Discussion

Date: Monday, October 23, 2017 9:51:28 AM

Ken

Thanks for the updated report. Just a couple of comments from a cursory look through the data.

The bright orange corrosion products is a pointer to at least a consideration of sulfate reducing bacteria induced anaerobic corrosion.

This is where bacteria (likely from the contaminated soils rather than from sewage outfalls) use the hydrogen in the water to reduce sulfates to hydrogen sulfides. (black deposits behind the orange scale).

Any lab testing been done on any of these corrosion products to at least confirm one way or another?

From my experience stray current can passively exist in sheet piling, only becoming a problem when it finds a path out of the steel. At that location there is rapid and highly concentrated pitting corrosion at the point of discharge.

I think you are right on with the abrasion of the lock at the mud line. A rock fill or gabion placement in the pans of the piles would help slow that action.

The possibility of a portion of the sheet piles being breached within a year or two is a bit concerning. Do you have any plans in preparation for sheet pile replacement that we can help you with?

Thanks

Gerry

----Original Message-----

From: "Scheffler, Ken/SEA" < Ken. Scheffler@CH2M.com>

Sent: Monday, October 23, 2017 11:40am

To: "gmcshane@servicesteel.org" < gmcshane@servicesteel.org>

Cc: "Duppong, Jerry/SEA" <Jerry.Duppong@CH2M.com>, "bottcher.helen@epa.gov"

<bottcher.helen@epa.gov>

Subject: RE: Wyckoff Sheet Pile Wall Condition Discussion

Gerry FYI the latest sheep pile investigation report. If you have any comments we would love to hear them...thanks again for all your assistance on the Wyckoff project.

From: gmcshane@servicesteel.org [mailto:gmcshane@servicesteel.org]

Sent: Monday, October 10, 2016 2:59 PM

To: Scheffler, Ken/SEA <Ken.Scheffler@CH2M.com>

Cc: Duppong, Jerry/SEA <Jerry.Duppong@CH2M.com>; bottcher.helen@epa.gov

Subject: RE: Wyckoff Sheet Pile Wall Condition Discussion [EXTERNAL]

Ken / Helen / Jerry

Please find attached my thoughts after visiting the site and looking at the Frodingham 5 sheet pile wall.

Speak with you on Wednesday.

Gerry

-----Original Message-----

From: Ken.Scheffler@CH2M.com Sent: Monday, October 10, 2016 1:31pm

To: <u>Jerry.Duppong@CH2M.com</u>, <u>Bottcher.Helen@epa.gov</u>, <u>gmcshane@servicesteel.org</u> Subject: Wyckoff Sheet Pile Wall Condition Discussion

Helen has a conflict can you guys make 9 pacific work?